BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's own motion to improve distribution level interconnection rules and regulations for certain classes of electric generators and electric storage resources.	Rulemaking 11-09-011 (September 22, 2011)

COMMENTS OF THE CALIFORNIA SOLAR ENERGY INDUSTRIES ASSOCIATION ON THE DRAFT PHASE 2 RECOMMENDATIONS OF THE SMART INVERTER WORKING GROUP

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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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Pursuant to the "Draft Recommendations for Utility Communications with Distributed Energy Resources (DER) Systems with Smart Inverters" from the Smart Inverter Working Group, served on November 6, 2014, the California Solar Energy Industries Association (CALSEIA) respectfully submits these comments.

1. Editorial Comments on the Document

The draft recommendations contain language that is overly conclusive about Phase 3 requirements. Section 4 and Section 5.3 should contain language in the opening paragraphs clarifying that the use cases and performance requirements are proposed by the utilities for purposes of developing communications protocols but have yet to be vetted as recommended use cases and performance requirements.

Section 4 should be amended to read:

> The utilities reviewed the Phase 1 and Phase 3 functions as Use Cases to determine their *RECOMMENDED* data requirements. These are summarized below, along with indications of the importance to utilities (H, M, L). *THESE USE CASES WILL BE MORE FULLY CONSIDERED IN PHASE 3 BUT ARE PRESENTED HERE FOR ILLUSTRATIVE PURPOSES.*

Section 5.3 should be amended to read:

Utilities have *PROPOSED* the following performance requirements for interacting with different types of DER systems. *THESE REQUIREMENTS WILL BE CONSIDERED IN PHASE 3 BUT ARE PRESENTED HERE FOR ILLUSTRATIVE PURPOSES.*

2. Substantive Comments on the Recommendations

A. Allow Small Systems to Opt Out

Transferring the amount of data contemplated in the draft recommendations would require a significant cellular data plan and may require solar companies to switch to customer operated WiFi. If these are not already in operation at the installation site, they could result in a high cost to the solar company or the customer. If a customer with a small solar system (less than 10 kW) finds it cost prohibitive to establish cellular or Internet connections, they should be given the opportunity to forego ancillary services revenue streams and not establish the recommended communications channels.

B. Ensure that Customers Can Produce and Store Energy During Curtailment Events

The use cases in the draft recommendations include the ability of utilities to curtail generation from distributed generators in the event of local or system-wide overgeneration. CALSEIA presumes this will only be possible for customers that have existing contracts with the utility that include compensation for avoided generation. For those who have such contracts, it should also be made clear that they will have the ability in such times to allow the inverter to route electricity from an on-site generator to an on-site energy storage system.

C. Allow Protocol Options That Are Mutually Acceptable

CALSEIA supports the adoption of a single communications protocol as the standard, and we currently have no objection to SEP 2 as that standard provided it performs as expected during pilot testing. However, we recommend that other communications protocols be allowed if they are able to perform the same services at the same quality. In particular, should a developer

and utility identify a mutually acceptable alternative to the standard protocol, that alternative should be allowed. This flexibility is critically important and is highly consistent with the flexibility that CALSEIA understands is reflected in IEEE 1547.

3. Conclusion

CALSEIA appreciates the opportunity to provide these comments. We look forward to continuing to work with the Smart Inverter Working Group to develop effective standards for advanced inverter functionality.

DATED at Santa Rosa, California, this 10th day of November, 2014

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